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PTO	-1449	9		Application No.	Applicant(s)			
Ir	ıforr	nation Disclos	ure Citation	10/849,346	Mohammed N			
••		in an Applica		Docket Number	Group Art Unit	Filing Date		
				074036.0134	2873	May 19, 20	04	
·				U.S. PATENT DOCUMEN	TS			
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING	DATE
DK	A	4,011,009	03/08/77	Lama, et al.	385 <del>350</del>	27162 R	05/2	7/75
OS	В	4,900,119	02/13/90	Hill, et al.	359-350-	57 <del>96.15</del>	04/0	1/88
1/5	C	5,103,340	04/07/1992	Dono et al.	385	46	08/07	/1991
0/5	D	5,212,743	05/18/93	Heismann	385	11	02/1	2/92
Ж	Е	5,291,502	03/01/1994	Pezeshki et al.	372	20	09/04	/1992
7/5	F	5,311,360	05/10/94	Bloom, et al.	359	572	04/2	8/92
7/5	G	5,343,542	08/30/1994	Kash et al.	385	31	04/22	/1993
205	Н	5,459,610	10/17/95	Bloom, et al.	359	572	05/2	0/93
X	1	5,500,761	03/19/96	Goossen, et al.	359	290	01/2	7/94
nK	Ţ	5,654,819	08/05/97	Goossen, et al.	359	291	01/0	7/95
WE	К	5,659,418	08/19/97	Yurke	359	290	02/0	5/96
火	L	5,661,592	08/26/97	Bornstein, et al.	359	291	01/0	7/95
2/1	М	5,701,193	12/23/97	Vogel, et al.	359	290	02/2	1/96
7K	N	5,745,271	04/28/98	Ford, et al.	359	130	07/3	1/96
<del></del>			F	OREIGN PATENT DOCUM	ENTS		TRANSL	ATION
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
	0	0 667 548 A1	16.08.1995	EP	G02B	26/02	X	
15	Р	0 689 078 A1	27.12.1995	EP	G02B	26/08	X	
				NON-PATENT DOCUMEN	ITS			
		DOG	CUMENT (Includir	ng Author, Title, Source, a	nd Pertinent Page:	s)	DA	TE
YS	Q	K. E. Petersen, "M Letters, Vol. 31, No	icromechanical Lig	ht Modulator Array Fabricat	ed On Silicon," App	lied Physics	10/1	5/77
W	R	C. Marxer, et al., "I	Megahertz Opto-M	echanical Modulator," Elsev	ier Science S.A., p	o. 46-50	19	96
K	s	C. M. Ragdale, et a	al., "Integrated Thron Multiplexing," El	ee Channel Laser and Option	cal Multiplexer for N lo. 11, pp. 897-898	arrowband	05/2	6/94
75	Т		arrow-Bandwidth (	Optical Waveguide Transmis		onic Letters,	04/2	3/87
)K	U	C. M. Ragdale, et	al., "Integrated Las	er and Add-Drop Optical Meetronic Letters, Vol. 28, No.	ultiplexer for Narrow 0.89, pp. 712-714	band	04/0	9/92
75	V ,	K. Aratani, et al., "	Process and Desig	n Considerations for Surfac con," Handbook of Physics,	e Micromachined B	eams for A	19	93
	E MIN		DAVID SI PRIMARY E	PECTOR DATE CO	nsidered			
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PTO-1449	Application No.	Applicant(s)		
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	Docket Number	Group Art Unit	Filing Date	
in an Application	074036.0134	2873	May 19, 2004	

## **U.S. PATENT DOCUMENTS**

		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
DB	A	5,751,469	05/12/98	Arney, et al.	359	291	02/01/96
Ī	В	5,774,252	06/30/1998	Lin et al.	359	224	04/19/1996
	С	5,825,528	10/20/98	Goossen	359	291	12/26/95
	D	5,835,255	11/10/98	Miles	359	291	05/05/94
	E	5,841,579	11/24/98	Bloom, et al.	359	572	06/07/95
	F	5,850,492	12/15/98	Morasca, et al.	385	11	11/06/96
	G	5,870,221	02/09/99	Goossen	359	290	07/25/97
T	Н	5,909,303	06/01/1999	Trezza et al.	359	248	01/03/1997
П	1	5,914,804	06/22/99	Goossen	359	291	01/28/98
	J	5,920,391	07/06/1999	Grasdepot et al.	356	352	04/22/1998
	K	5,943,155	08/24/99	Goossen	359	247	08/12/98
$\top$	L	5,943,158	08/24/99	Ford, et al.	359	295	05/05/98
	M	5,943,454	08/24/99	Aksyuk, et al.	385	22	08/15/97
	N	5,949,571	09/07/99	Goossen, et al.	359	291	07/30/98

## **FOREIGN PATENT DOCUMENTS**

							TRANSL	ATION
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
MA	Š	0 788 005 A2	06.08.1997	EP	G02B	26/02	X	
ME	Р	99/34484	08.07.1999	WO	H01S		X	
DE	ď	01/09995 A1	08.02.2001	wo	H01S	5/00	×	

#### **NON-PATENT DOCUMENTS**

	1	1	
1		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
M	R	O. Solgaard, et al., "Deformable Grating Optical Modulator," Optics Letters, Vol. 17, No. 9, pp. 688-690	05/01/92
	s	W.R. Wiszniewski, et al., "Mechanical Light Modulator Fabricated On A Silicon Chip Using Simox Technology, pp. 1027-1030	Undated
П	т	M.W. Chbat, "High-spectral-efficiency transmission systems," OFC 2000, Baltimore, MD, pp TuJ1-1, 134-136	
	υ	J.W. Bayless, et al., "The Specification and Design of Bandlimited Digital Radio Systems," IEEE Transactions on Communications, Vol. COM-27 (12): pp. 1763-1770	
	V	D.E. Sene, et al., "Polysilicon Micromechanical Gratings for Optical Modulation," Elsevier Vol. Sensors and Actiators (A 57), pp. 145-151	
1737	ABATEL	DATE CONCIDENTS	

DAVID SPECTOR PRIMARY EXAMINER 8 30 2004

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. Patent and Trademark Office

Applicant(s) PTO-1449 Application No. Mohammed N. Islam et al. **Information Disclosure Citation Docket Number Group Art Unit** Filing Date in an Application 074036.0134 May 19, 2004

## **U.S. PATENT DOCUMENTS**

	$\perp$		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
N	5	Α	5,949,801	09/07/1999	Tayebati	372	20	07/22/1998
Ī	T	В	5,960,133	09/28/99	Tomlinson	385	18	01/27/98
	T	С	5,974,207	10/26/99	Aksyuk, et al.	385	24	12/23/97
T	T	D	5,986,796	11/16/99	Miles	359	260	11/05/96
T	T	E	5,999,319	12/07/1999	Castracane	359	573	04/29/1998
	T	F	6,002,513	12/14/99	Goossen, et al.	359	291	06/22/98
T	T	G	6,025,950	02/15/2000	Tayebati et al.	359	244	07/27/1998
Τ		Н	6,041,071	03/21/2000	Tayebati	372	64	09/27/1996
T		1	6,123,985	09/26/2000	Robinson et al.	427	162	10/28/1998
T		J	6,204,946 B1	03/20/2001	Aksyuk et al.	359	131	11/12/97
Ī		K	0055147 A1	12/27/2001	Little et al.	359	293	03/20/2001
		L	6,271,052 B1	08/07/2001	Miller et al.	438	50	10/19/2000
L		М	6,301,274 B1	10/09/2001	Tayebati et al.	372	20	03/30/1999

# FOREIGN PATENT DOCUMENTS

	~	_						TRANSL	ATION
1	13		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
		N	01/67156 A2	13.09.2001	WO	G02B	26/00	X	
		0	01/67157 A2	13.09.2001	wo	G02B	26/00	х	
		Р	01/67158 A2	13.09.2001	wo	G02B	26/00	Х	
		Q	01/67171 A2	13.09.2001	wo	G02F	1/21	×	
		R	01/75497 A1	11.10.2001	wo	G02B	6/35	Х	

#### **NON-PATENT DOCUMENTS**

2	15		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
		s	D.M. Burns, et al., "Micro-Electro-Mechanical Variable Blaze Gratings," IEEE 10th Annual International Workshop on Micro Mechanical Systems, pp. 385-391	1997
		т	L.Y. Lin, et al., "Micromachined polarization-state controller and its application to polari zation-mode dispersion compensation," OFC 2000, Baltimore, MD, pp. ThQ3-1, 244-246	2000
		U	J.W. Bayless, et al., "High Density Digital Data Transmission," National Telecommunications Conference, Dallas, TX, pp. 1-6	1976
Γ,		~	R.W. Corrigan, et al., "17.3: Calibration of a Scanned Linear Grating Light Value Projection System," www.siliconlight.com	1999

DATE CONSIDERED DAVID SPECTOR 8 30 2004

Inwal if citation considered, whether Er not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. Patent and Trademark Office

							Pag	e 4 of 8
PTC	)-144	49		Application No.	Applicant(s)			
l Ir	nfor	mation Disclos	ure Citation	101849346	Mohammed N			
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				074036.0134	1 2015	May 19, 200	04	
				U.S. PATENT DOCUMEN	тѕ			
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING	DATE
US	Α	6,341,039 B1	01/22/2002	Flanders et al.	359	578	08/25	/2000
	В	6,373,632 B1	04/16/2002	Flanders	359	359 578		
	С	6,381,387 B1	04/30/2002	Wendland, Jr.	385	37	08/02	/2000
		6,407,851 B1	06/18/2002	Joyner et al.	385	14	10/08	/2002
	D	2002/0035193 A1	02/20/2003	Islam et al.	359	290	08/22	/2002
H	E	2003/0081878 A1	05/01/2003	Joyner et al.	385	14	10/08	
H - I	F	2003/0086465 A1	05/08/2003	Peters et al.	372	50		/2002
	G	2003/0095736 A1	05/22/2003	Kish, JR. et al.	385	14	10/08	/2002
10K	Н	2003/0095737 A1	05/22/2003	Welch et al.	385	14	10/08	/2002
40		6 597 492 B2	07/22/2003	Islam et al.	350	201	08/22	
न्तर	J	6,611,366 B1	08/26/2003	Islam et al.	359	291	04/22	/2002
n/k	к	6,654,157 B2	11/25/2003	Islam et al.	359	291	08/22	/2002
	11/25/2000 Islam et al. 000 201							
l			F	OREIGN PATENT DOCUM	ENTS			
	۸.	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSL YES	ATION
7015	L	WO 01/37021 A1	14.11.2000	PCT	G02B	6/42	X	
7	М	WO 01/79795 A1	22.03.2001	PCT	G01J	3/28	X	<u>†                                      </u>
	N	WO 02/056521 A1	02.11.2001	PCT	H04J	14/00	×	<b></b>
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DK	0	SLM "GLV Techno				-1		99
				Valve Technology for Proj	jection Displays," F	Presented at the	19	98
	<u> </u>	International Displa	·	· · · · · · · · · · · · · · · · · · ·			19	96
	Q	M. Ming, et al., "Pri	nciples and Applic	cations of Optical Communic	ations," Irwin, pp. 4	168 & 470		
	R	SLM "The Grating	Light Valve Techn	ology," www.siliconlight.com	<u> </u>		19	
	s	SLM "The Scanned	Grating Light Val	ve Display Architecture," wv	vw.siliconlight.com		19	99
	т	A/Wilner, "WDM S	Systems 1," OFC '	97, Dallas, TX, pp. TuJ, 43-4	15		19	97
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না	В	WO 02/059655 A2	20.12.2001	PCT	G02B	COBOLAGO	X			
1	<b>†</b> c	WO 02/06860 A1	11.07.2001	PCT	G02B	5/18	Х			
T	10	WO 02/10822 A1	31.07.2001	PCT	G02B	6/34	х			
				NON-PATENT DOCUMENT	rs					
		DOCU	MENT (Includ	ing Author, Title, Source, and	d Pertinent Page	s)	DA	TE		
21	) E	C. Pu, et al., "Mich Technology Letters,"	romachined Ir	ntegrated Optical Polarization	-State Rotator,"	IEEE Photonics	10/2			
	F			Light Valve Technology: U Display Symposium, Anaheim		el Applications,"	199	1999		
П	G		per-Coupled Va	ariable Attenuator Using a MA	RS Modulator,"	SPIE, Vol. 3226,	199	97		
	н	S.A., vol. Sensors an	d Actuators, pp				199	98		
	ı	Technology Letters, \	Vol. 12 (6), pp.				200	00		
	J	318		ynamic WDM Equalization," E			199	98		
	к	Power Equalization	·	anical Gain Slope Compens	·		200	00		
	L	Mbit/sec Capability f (9), pp. 1119-1121	or Fiber-in-the-	lator Based on Mechanically-A Loop Applications," IEEE Pho	otonics Technolog	y Letters, Vol. 6	199	94		
	М	IEEE Photonics Tech	nology Letters	Enhancement in Free-Space   , Vol. 11 (10), pp. 1253-1255			199	99		
	N	for Large-Scale Opti 527	cal Crossconne	nachined Optical Switches wi ects," IEEE Photonics Techno	logy Letters, Vol.	10 (4), pp. 525-	199	98		
	0	Speed Networks, pp.	17-34	nects for High-capacity Light			19	99		
	E.P. Furlani, et al., "Analysis of grating light valves with partial surface electrodes," American Institute of Physics, Vol. 83 (2), pp. 629-634									
	E.P. Furlani, et al., "Theory and simulation of viscous damped reflection phase gratings," J. Phys. D: Appl. Phys., Vol. 32, pp. 412-416									
$ \Psi $	K. Aratani, et al., "Surface misrars seign deneable interferometer array," Sensors and Actuators, Vol. 43, pp. 17-23  PRIMARY EXAMINER  DATE CONSUMERED									
<del> </del> EX	AMI	NE	1 1 11141/-11 11	DATE CON	ISIDERED					
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FOREIGN PATENT DOCUMENTS												
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	月	В	WO 01/37021 A1	14.11,2000		PCT	<u>.                                    </u>		G02B	6/42	X	110
	1	С	WO 01/79795 A1	22.03.2001		PCT			G01J	3/28	X	
	И	D	WO 02/056521 A1	02.11.2001		PCT			H04J	14/00	×	<del> </del>
	<b>Y</b> _1	<b>. L</b>		<u> </u>	N	ON-PATENT DO	CUMENT	s				
	П					A						<b>-</b>
1	X	E	R.T. Howe, et al. Society," Vol. 130 (6	, "Polycrystalli	ne S	Author, Title, So illicon Micromed					19	
F	Ī	F	S.R. Mallinson, "Wa interferometers," Ap	velength-selec	tive fi			WC	M systems u	sing Fabry-Perot	19	87
		G	L.Y. Lin, et al., "Mic Dispersion-compen	sation," OFC 20	000, E	Baltimore, MD, p	p. ThQ3-1	, 14	4-246			00
		Н	L.Y. Lin, et al., Micromachines," Of				tunities fo	or a	and Progress	s in Lightwave	20	00
	П	ı	Author Unknown, "E	Diffraction and I	nterfe	erence," Optics,	Chapter 6,	pp.	102-103		Unda	ated
Γ		J	"Polarization Mod http://www.usa.alca			PMD)," Cables hlpmd2.htm	& Co	omp	onents Tec	hnical Papers,	20	00
	П	K	"Menyuk Tutorial," (								03/2	000
		L	Agrawal, "Fiber-Option University of	Rochester NY,	pp. 2	284-360						
		M	Ford et al., "Fiber-C 3226, pp. 86-93	oupled Variable	e Atte	enuator Using a	MARS Mo	dula	ator," Invited F	Paper, SPIE, Vol.	199	97
		N	Sadot et al., "Tunat pp. 50-55	ole Optical Filte	ers for	Dense WDM N	letworks,"	IEE	E Communica	ations Magazine,	12/1	998
		0	Goossen, "MEMS-E	ased Variable	Optic	al Interference D	Device," IE	EE,	Invited MB1,	pp. 17-18	08/2	000
		P	Walker et al., "Mech Applications," Invite			on Switch (MARS	S) Device f	or F	iber-In-the-Lo	юр	Und	ated
		Q	Jerman, "Minature WDM Systems," Tr pp. 372-375	Fabry-Perot In	terfer							91
	Wu et al., "Widely and Continuously Tunable Micromachined Resonant Cavity Detector with Wavelength Tracking," IEEE Photonics Technology Letters, Vol. 8, No. 1, pp. 98-99  Vail et al., "GaAs micromachined widely tunable Fabry-Perot Filters," Electronics Letters, Vol. 31, 01/1996											
V		s/	No.,3, pp. 248,229	nicromachined	widel					Letters, Vol. 31,	01/1	996
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				FOF	REIGN PATENT DOCUME	ENTS	5				
		DOCUMENT NO.	DATE		COUNTRY		CLASS	SUBCLASS	TRANSL	ATION	
n	В	WO 02/059655 A2	20.12.2001		PCT		G02B	SOBCLASS	X	NO	
	С	WO 02/06860 A1	11.07.2001		PCT		G02B	5/18	X	<del> </del>	
1	D	WO 02/10822 A1	31.07.2001		PCT		G02B	6/34	<u>``</u>		
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125	• D		erformance m	cron	nechanical tunable vertic					09/26/1996	
	Ē	Tayebati et al., "Mic	roelectromech	anica	al tunable filter with stable	half	symmetric ca	vity," Electronics	10/01/	/1998	
H		Letters, Vol. 34, No. Tayebati et al., "Mid			al tuneable filters with 0.4	17 nr	n linewidth ar	nd 70 nm tuning			
$\square$	F	range," Electronics I			1, 2 pages ry-Perot Filter Using Ga(	Δ1\Δ	s-A10x Defo	rmable Mirrors "	01/08/1998		
	G	IEEE Photonics Tec	hnology Letters	s, Vo	i. 10, No. 3, pp. 394-396				03/1998		
Ш	н	Letters, Vol. 8, NO.	3		Fabry-Perot Tunable Fil				03/1996		
	ı	arrays," SPIE, Vol. 3	3131, pp. 99-11	0	using surface micromach				Unda	ated	
	J	Burns et al, " Design 100-110	gns to improve	poly	silicon micromirror surfac	e to	pology," SPIE	, Vol, 3008, pp.	Unda	ated	
	K	"1-D vs. 2-D vs. 3-D	MEMS Optical	Swi	tch Architectures," Networ	k Ph	otonics, pp. 1	-3	Unda	ated	
	L				d Optical Switch, Network				Unda	ated	
	M	Vail et al., "GaAs r No. 3, pp. 228-229	micromachined	wide	ely tunable Fabry-Perot fil	iters,	" Electronics	Letters, Vol. 31,	02/02	/1995	
	N	Tayebati et al, "Mic Letters, Vol. 34, No.			I tunable filter with stable	half	symmetric ca	vity," Electronics	10/01	/1998	
	0	Tran et al., "Surfa Letters, Vol. 8, No. 3		ned	Fabry-Perot Tunable Fil	lter,"	IEEE Photor	nics Technology	03/1	996	
	P	Ford et al, "Microm Technology, Vol. 16			otic Attenuator with 3 μs	Res	ponse," Journ	nal of Lightwave	09/1	998	
	Walker et al., "Fabrication of a Mechanical Antireflection Switch for Fiber-to-the-Home Systems,"  Q Journal of Microelectromechanical Systems, Vol. 5, No. 1, pp. 45-51								03/1	996	
V	R /	Goossen et al., "M	licromechanica	Ga	in Slope Compensator fo ogy Letters, Vol. 12, No. 7,	or Sp	pectrally linea	r Optical Power	07/2	000	
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U.S. Patent and Trademark Office